

AMENDMENTS TO THE CLAIMS

Claims 1-24 (Canceled)

25. (Previously presented) A transgenic mouse whose genome comprises a disruption in an endogenous PKDL2 gene, wherein where the disruption is homozygous, the transgenic mouse lacks production of functional PKDL2 protein, and exhibits increased activity, relative to a wild-type control mouse.
26. (Previously presented) The transgenic mouse of claim 25, wherein the increased activity is characterized by an increase in total distance traveled in an open field environment, relative to a wild-type control mouse.
27. (Previously presented) A cell or tissue obtained from the transgenic mouse of claim 25.
28. (Previously presented) A transgenic mouse comprising a heterozygous disruption in an endogenous PKDL2 gene, wherein the disruption in a homozygous state inhibits production of functional PKDL2 protein resulting in a transgenic mouse exhibiting increased activity, relative to a wild-type control mouse.
29. (Previously presented) The transgenic mouse of claim 28, wherein the increased activity is characterized by an increase in total distance traveled in an open field environment, relative to a wild-type control mouse.
30. (Currently amended) A method of producing a transgenic mouse comprising a disruption in an endogenous PKDL2 gene, the method comprising:
- (a) introducing a targeting construct capable of disrupting endogenous PKDL2 gene into a murine embryonic stem cell;
 - (b) selecting for the murine embryonic stem cell that has undergone homologous recombination;
 - (b)(c) introducing the murine embryonic stem cell selected for in step (b) into a mouse blastocyst;
 - (c)(d) implanting the resulting blastocyst into a pseudopregnant mouse, wherein the pseudopregnant resultant mouse gives birth to a chimeric mouse; and
 - (d)(e) breeding the chimeric mouse to produce the transgenic mouse,

wherein where the disruption is homozygous, the transgenic mouse lacks production of functional PKDL2 protein and exhibits increased activity, relative to a wild-type control mouse.

Claims 31-34 (Canceled)